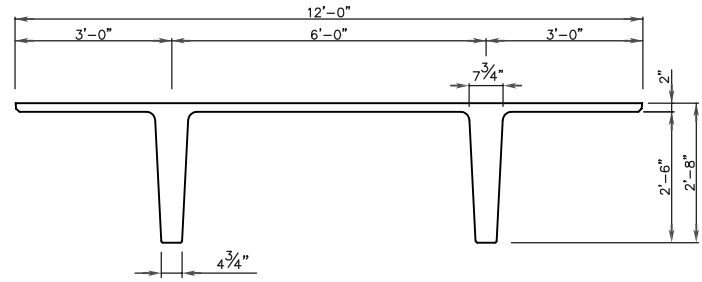


Prestressed Concrete 32" x 12' DOUBLE TEE (NO TOPPING)

PHYSICAL PROPERTIES

A = 663 in. ²	S _b = 2,800 in. ³
I = 63,362 in. ⁴	S _t = 6,761 in. ³
Y _b = 22.63 in.	Wt. = 691 PLF
Y _t = 9.37 in.	Wt. = 69 PSF



Depth	Strand 4 - 0.6" Ø	Parallel	Draped	Topping
28	4.6	P	D	T

DESIGN DATA

1. Precast Strength @ release = 3,500 PSI.
2. Precast Strength @ release for draped tees = 4,500 PSI.
3. Precast Strength @ 28 days = 6,000 PSI
4. Precast Density = 145 PCF
5. Strand = 0.6" Ø 270K Lo-Relaxation.
6. Maximum moment capacity is critical at midspan for parallel strands and is critical near 0.4 span for draped strands.
7. Maximum bottom tensile stress is $12\sqrt{f_c} = 930$ PSI
8. Flexural capacity is based on stress/strain strand relationships.
9. All superimposed load is treated as live load in the flexural strength analysis. To determine the allowable live load if the amount of superimposed dead load is known use the following conversion method...

$$\text{Allowable Live Load} = \frac{(1.6)(\text{Load Table Value}) - (1.2)(\text{Superimposed Dead Load})}{1.6}$$

10. If the above conversion is used then allowable stress limits must be checked so they are not exceeded.
11. Deflection limits were not considered when determining allowable loads in this table.

ALLOWABLE SUPERIMPOSED LIVE LOADS (psf)

Section	Ø Mn (in. Kips)	SPAN (FEET)																								
		40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84	86	
32 - 4.6 P	6,083	88	76	65	56	48	41	34																		
32 - 6.6 P	8,783				100	89	78	69	61	54	47	41	36													
32 - 8.6 P	11,255							101	90	81	72	65	58	52	46	41	36									
32 - 10.6 P	13,500													106	96	87	78	71	64	58	52	47	42	37		
32 - 12.6 P	15,516													106	96	88	80	73	66	60	55	50	45	39		
32 - 14.6 D	20,406															111	102	94	86	79	72	66	60	55	46	
32 - 16.6 D	23,001																115	106	98	89	82	76	70	64	59	54
32 - 18.6 D	25,516																	116	107	99	92	85	78	72	67	61